

CLAIMS

1. In case that a thermally tempered glass is produced by allowing an impact jet flow from quenching nozzles to blow against the glass, a process for producing a curved, thermally tempered glass, characterized in that a quenching is conducted by simultaneously using at least two types of quenching nozzles having different exit diameters of the quenching nozzles.
2. A process for producing a curved, thermally tempered glass according to claim 1, characterized in that an exit diameter d of the quenching nozzle is from $\phi 1\text{mm}$ to $\phi 8\text{mm}$, that a distance Z between the quenching nozzle and the glass is from 1mm to 80mm , and that a pressure P of a chamber communicating with the quenching nozzle is from 0.1 to 0.8MPa .
3. A process for producing a curved, thermally tempered glass according to claim 1 or claim 2, characterized in that a heat flux difference within a glass surface is adjusted to 150kW/m^2 or less by properly changing a distance Z between the nozzle and the glass, a pressure P of a chamber, and a diameter d of the quenching nozzle.
4. A process for producing a curved, thermally tempered glass according to any one of claims 1 to 3, characterized in that a distance Z between the quenching nozzle and the glass, a pressure P of a chamber, and a diameter d of the quenching nozzle are set, thereby adjusting a difference of surface compressive stress values of the thermally tempered glass to 20MPa or less.
5. A curved, thermally tempered glass characterized in that it has been produced by any one process of claims 1 to 4.
6. A curved, thermally tempered glass according to claim 5, characterized in that a difference of surface compressive stress values within a glass surface

is 20MPa or less.

7. An apparatus for producing a curved, thermally tempered glass according to claim 5 or claim 6, characterized in that it is simultaneously provided with at least two kinds of quenching nozzles having an exit diameter D of $\phi 1\text{mm}$ to $\phi 8\text{mm}$, that it has a system controlled to make a chamber pressure P have a value of 0.1MPa to 0.8MPa, and that it uses a quenching nozzle capable of adjusting a distance Z between the quenching nozzle and the glass to a range of 1-80mm.

10

8. An apparatus for producing a curved, thermally tempered glass according to claim 7, characterized in that quenching nozzles having different exit diameters are arranged at a curved region forming portion and a flat region forming portion, thereby adjusting a difference of surface compressive stress values within a glass surface to 20MPa or less.

15

9. An apparatus for producing a curved, thermally tempered glass according to claim 7, characterized in that at least two kinds of quenching nozzles of different exit diameters are arranged, thereby adjusting a difference of surface compressive stress values within a glass surface to 20MPa or less.

20